APPENDIX A

EPA Region IX Comment Letters Dated
June 16, 2004,
November 23, 2004,
January 25, 2005
On Earth Tech's Draft Field Sampling Plan

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

June 16, 2004

Mr. Joe Kelly
Montrose Chemical Corporation
600 Ericksen Avenue NE, Suite 380
Bainbridge Island, WA 98110

RE: Comments on Earth Tech's "Revised Final Alternative Soil Sampling Locations" and "Revised Table 1, Borehole Classifications;" and transfer of the "Draft Field Sampling Plan for the Montrose Superfund Site Supplemental Investigation," Montrose Chemical Superfund Site.

Dear Mr. Kelly:

On June 9, 2004, EPA received an email from Earth Tech, on behalf of the Montrose Chemical Company (Montrose), transmitting a soil sampling location map ("Revised Final Alternative Soil Sampling Locations") and a sampling schedule/table ("Revised Table 1, Borehole Classifications"). A revised version of the schedule/table was submitted electronically on June 10, 2004.

EPA was asked to review these documents for accuracy in properly representing the revised scope of work for the Montrose Chemical Superfund Site (Site), Supplemental Soil Investigation Field Sampling Plan (FSP), following the extensive discussions between Montrose and EPA over the past eight months. EPA has reviewed those documents and has minor comments, which are attached.

By this letter, EPA is also transferring the preparation of the subsequent drafts of the Field Sampling Plan for the Supplemental Soil Investigation from EPA to Montrose. A compact disk (CD) has been prepared by CH2M Hill and sent under separate cover to Mr. Brian Dean, Earth Tech, via Federal Express. This CD has the electronic files for the text, and the majority of figures and tables from EPA's October 2003 "Draft Field Sampling Plan for the Montrose Superfund Site Supplemental Investigation." Figures 5-1 and 5-2, and Table 6-1, have not been included in the CD, as they will be replaced by the revised soil sampling location map, and updated sampling schedule/tables (see attached comments). Please note that EPA has modified the text slightly, incorporating both those changes to the scope of work discussed in our meetings, and minor editorial changes. These changes are easily identifiable as "tracked changes" in Microsoft's Word software.

It is our understanding that Montrose will prepare a draft FSP representing the revised scope of work for the supplemental soil investigation using the files on the CD, and then submit the revised draft FSP to EPA for review and comment. We request that additions and modifications to the FSP documents be made as tracked changes for easy identification by EPA. EPA will approve Montrose's draft FSP, or provide comments necessitating subsequent drafts of the FSP. The final FSP document must be reviewed and approved by EPA prior to the initiation of any field work.

Additionally, it is our understanding that Montrose has agreed to prepare the draft FSP as a joint document with JCI Jones Chemicals (Jones), and intends to submit it to EPA on June 25, 2004. Furthermore, this draft FSP will include sampling at the Jones property. EPA welcomes this approach for the FSP. However, while significant effort has been expended to define the scope of work for the Montrose Property and near-by properties, there has been no discussion of a scope of work for the Jones property. EPA may need to modify or amend the proposed scope of work submitted in the June 25, 2004 draft FSP, to ensure that our objectives for soil sampling for the entire Site will be met.

Please contact me at 415-972-3106, if you have any questions regarding the information in this letter or its attachment.

Sincerely,

Susan Keydel
Remedial Project Manager
Superfund Division

cc: Karl Lytz, Latham & Watkins LLP
Kelly Richardson, Latham & Watkins LLP
Paul Sundberg, Montrose Consultant
Brian Dean, Earth Tech
Mike Palmer, Hargis + Associates, Inc
Tim Gaffney, JCI Jones Chemicals
Jim Levine, LFR Levine Fricke
Michael Tracy, Gray Cary Ware & Freidenrich LLP
Yasser Aref/DTSC (2 copies)
Rich Sturn, CH2M Hill

EPA Comments on:
"Revised Final Alternative Soil Sampling Locations" and
"Revised Table 1, Borehole Classifications"

EPA has reviewed the interim soil sampling location map ("Revised Final Alternative Soil Sampling Locations," June 9, 2004) and sampling schedule/table ("Revised Table 1, Borehole Classifications," June 10, 2004) provided by Earth Tech, and has the following comments:

1. A revised version of the Revised Table 1, Borehole Classifications, incorporating the following comments, should replace Table 6-1 in the Montrose Draft Field Sampling Plan (FSP) to be submitted to EPA. A new Table 6-2 should be prepared for aqueous quality control samples (e.g., trip and equipment blanks).

2. For borings in the Western Waste parcel (C208 through C234), samples from depths greater than 2 feet bgs are noted with a double-asterisk (**), indicating conditional analysis. EPA requires that samples from all depths identified in the May 19, 2004 letter, Comment 2, be analyzed, and the notation for conditional analysis be removed from the table and related text. A conditional approach associated with sample depth is not valid for this area which has been subjected to soil disturbance.

3. The table and figure present incorrect information for borings C27 and C28:

   a. Boring C27 - Analysis for volatile organic compounds (VOCs) and metals have been deleted, but should be retained.
   b. Boring C28 - Analysis for metals has been added, and can be deleted.

4. The table notes that borings C60, C61, C62 and C63 are deleted borings. These borings have in fact already been advanced to 90 feet bgs and sampled for VOCs, DDT and BHC. The table should instead note that these borings have already been completed. Furthermore, results from these borings should be included in subsequent data reports as part of this FSP work.

5. For borings in the LADWP right-of-way and Farmers Brothers property (boring locations C91-C109, C111-C118, C120-C129, C131-C141, and C143), the 4-foot and 6-foot sampling depths are noted with a double-asterisk (**), indicating conditional analysis. EPA requires that all sample depths be analyzed, and the notation for conditional analysis be removed from the table and any related text. A conditional approach is not valid for this area, where the need for analysis of samples from depths greater than 2 feet bgs is

already indicated by historical DDT and BHC data, and where soil has been subjected to disturbance (e.g., construction at the Farmers Brothers property).

6. The locations of several proposed boring (i.e., C82, C83, C85 to C90, C110, C130, C142, C144 and C145) were identified by EPA as relative to (e.g., west of) specific historical sampling locations. Confirmation of the correct locations for these proposed borings shall be provided to EPA for review and comment (e.g., a map correctly showing the locations of referenced historical samples and proposed borings).

7. Proposed borings C128 and C129 should be relocated at 100-foot intervals to the east of C127, effectively shifting them slightly west of the currently identified locations. In addition, boring C141 should be located directly south of relocated boring C129. The intent of relocating these samples is to have them characterize the off-Property areas, as opposed to the historical Normandie Avenue ponding area.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

November 23, 2004

Mr. Joseph Kelly
Montrose Chemical Corporation
600 Ericksen Avenue NE, Suite 380
Bainbridge Island, WA 98110

RE: Comments on the September 7, 2004 "Draft Supplemental Soil Investigation Field Sampling Plan for the Montrose Superfund Site," Los Angeles County, California; and, the October 8, 2004 "Additional Figures for Revised Draft FSP."

Dear Mr. Kelly:

EPA has reviewed the September 7, 2004 "Draft Supplemental Soil Investigation Field Sampling Plan for the Montrose Superfund Site" (Draft FSP), and the October 8, 2004 "Additional Figures for Revised Draft FSP" prepared by Earth Tech, Inc., on behalf of Montrose Chemical Corporation of California (Montrose). The Draft FSP proposes soil sampling at several properties including the former Montrose Plant Property, the Los Angeles Department of Water and Power (LADWP) right-of-way, the Farmers Brothers property, the business area east of Normandie Avenue (across from the Montrose Property), and the Western Waste (WW) parcel to the south of the business area. The scope of work for the Draft FSP is the outcome of discussions between Montrose and EPA over the past year.

EPA's comments are presented below. In addition, comments provided to EPA from the California Department of Toxic Substances Control (DTSC) are incorporated in this letter. Given the complexity of the plan and the number of comments, a revised Draft FSP addressing these comments should be prepared and submitted to EPA for review and approval prior to the initiation of any field work. In addition, we request that any questions or concerns regarding these comments be addressed either in a response-to-comments letter, or other communication, prior to the preparation and submittal of the revised Draft FSP.

Please contact me at 415-972-3106, if you have any questions regarding this letter.

Sincerely,

Susan Keydel
Remedial Project Manager
Superfund Division

cc: Karl Lytz, Latham & Watkins LLP
Kelly Richardson, Latham & Watkins LLP

Paul Sundberg, Montrose Consultant
Brian Dean, Earth Tech
Mike Palmer, Hargis + Associates, Inc
Yasser Aref/DTSC
Kimi Klein/DTSC
Frank Gonzales/DTSC
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EPA Comments on Draft FSP and Additional Figures

General Comments:

1. The locations of several proposed boring (i.e., borings C71, C75, C76, C92, C98, C99, C101, C102, C105, C106, C109 and C110) were to be located relative to specific historical sampling locations. In a November 9, 2004 communication, Earth Tech informed EPA that "*The locations shown in the most recent figures, provided to you on October 8, are correctly located based on the historical information provided by Hargis + Associates. [Earth Tech] staff adjusted the locations of those transect borings prior to the October 8 submittal.*" However, the locations of these borings have not changed from similar figures provided to EPA in March 2004, 2004. EPA again requests that confirmation of the correct locations for these proposed borings be provided to EPA (e.g., a map correctly showing both the referenced historical samples and the proposed borings locations). The Draft FSP cannot be approved, and soil boring coordinates should not be provided to surveyors, until it has been demonstrated to EPA that these proposed borings have been correctly located.

2. The Normandie Avenue Ditch and historical ponding area are not consistently referenced together (i.e., the "historical ponding area" has been removed from some references to the Normandie Avenue Ditch, such as in Sections 4.1 and 4.2). The revised Draft FSP shall address the "Normandie Avenue Ditch and historical ponding area" when referring to this area of concern; when referenced alone, the Normandie Avenue Ditch should refer to only the actual drainage channel.

3. The text was amended to state that Normandie Avenue Ditch and historical ponding area are "*located within the historical stormwater pathway.*" EPA accepts this characterization with the following two caveats:

    a. First, the historical stormwater pathway begins at the Montrose Plant Property and ends at the Consolidated Slip in the Los Angeles Harbor. EPA's investigation of this pathway is being conducted and managed as part of several Operable Units (OUs) associated with the Montrose Chemical Superfund Site, including: 1) on- and near-property Soil; 2) the current stormwater pathway; and, 3) the Neighbourhoods.

    b. Second, the phrase "historical stormwater pathway" as used in the Draft FSP and related documents should not be confused with defined terms in pre-existing settlement documents between EPA and Montrose. For example, with regard to the Partial Consent Decree relating to the Current Storm Water Pathway (lodged December 21, 2001), the Stormwater Pathway starts at the "subsurface stormwater conveyance that begins on the west side of Normandie Avenue" (i.e.,

the Kenwood Drain). The Normandie Avenue Ditch and historical ponding area are not part of the Stormwater Pathway addressed by that Partial Consent Decree.

EPA wishes to make it clear that use of the phrase "historical stormwater pathway" as used in the Draft FSP and related documents should not be confused with defined terms in pre-existing settlement documents between EPA and Montrose.

4. EPA anticipates that for the human health risk assessment (HHRA), the Johnson and Ettinger (J&E) vapor intrusion model will be used help assess potential exposure to volatile organic compounds (VOCs) in indoor air. Collection of soil physical parameters from the Montrose Plant Property would allow site-specific values to be used in estimating indoor vapor intrusion, resulting in estimates more representative than if the models default values were to be used. Therefore, the following soil physical parameters should be determined for the Montrose Plant Property in the sampling and analysis scope of work for the revised Draft FSP (analytical methods and appropriate units for data recording are identified).

   a. Bulk density (g/cm^3), ASTM D2937 or API RP40;

   b. Total porosity (cm^3/cm^3), API RP40;

   c. Water filled porosity (cm^3/cm^3), ASTM D2216 or API RP40; and,

   d. Soil Organic Carbon Fraction (g/g), Walkley-Black Method.

   Soil samples (in sleeves) should be collected at depths of 15 and 35 feet below ground surface (bgs) from the borings identified below. Theses borings (and the near-by existing soil-gas sampling locations where soil gas results are available at depths of 15 and 35 ft bgs) facilitate achieving equidistant spacing of data locations at the Montrose property.

   - Boring C1 (SG01)
   - Boring C9 (SG08)
   - Boring C17 (SG14)
   - Boring C21 (SG12)
   - Boring C32 (SG21)
   - Boring C35 (SG22)
   - Boring C42 (SG20)
   - Boring C54 (SG27)
   - Boring C55 (SG28)
   - Boring C59 (SG29)
   - Boring C13 (to provide data for far western portion of the site)

   If this information is already available, that data should be submitted for EPA to review and determine if it is valid and adequate for use in the human health risk assessment.

5. EPA intends to send Performance Evaluation (PE) samples to the laboratory to be used by Montrose (as well as the CLP labs analyzing EPA split samples) to assess analytical quality, as well as data comparability. EPA intends to submit three PE samples to the Montrose laboratory: one set before field work begins to pre-qualify the laboratory and two sets during the field sampling event. EPA will coordinate with Montrose to further

define the PE sampling program (including actions to be taken if quality is low) as the field schedule is better defined.

6. EPA requires that for Sampling and Analysis Plans for Superfund sites, PRPs submit three documents: an FSP, a Quality Assurance Project Plan (QAPP), and a Health and Safety plan (H&SP). EPA conducts a minimal review of the H&SP to check that employers provide for the protection of human health, but EPA does not "approve" the H&SP, as PRPs and their consultants are responsible for complying with Occupational Safety and Health Administration (OSHA) requirements. As a companion document to the revised Draft FSP, a H&SP that addresses the activities proposed in the this FSP should be submitted to EPA. The FSP and QAPP can not be approved until this document has been provided to EPA.

Detailed Comments

The following comments are intended to refine the accuracy of the Draft FSP text; comments are presented in the order of the document.

7. Section 1.1 – Please add the date of the Montrose QAPP to the end of paragraph 1 and to the references in Section 8.

8. Section 1.2 –
   a. The Statement of Purpose should include providing data to support the human heath risk assessment for the Montrose Site as a reason for further characterization. Thus, the first sentence of the second paragraph should be amended to include the human health risk assessment as another rationale for why additional characterization is necessary.

   b. Modify the final phrase of the second sentence from "...and supplemented the RI Report," to "...*and will supplement or amend* the RI Report."

9. Section 1.3, paragraph 2 –
   a. In an aerial photograph dated September 25, 1965, the former acid plant and related buildings are visible; however, in an aerial photograph dated October 30, 1972, they are not longer present. Therefore, in the fourth sentence, the date given for dismantling the sulfuric acid plant should be changed from "the early 1960s" to "after 1965."

   b. The beginning of the leasing period for the area currently owned by JCI Jones Chemicals (Jones) has been changed in the Draft FSP from 1951 to 1952. The date should be revised back to 1951 (the date given by Jones in the May 8, 1992 partial response to EPA's Request for Information), or else evidence provided to EPA to support the 1952 date.

10. Section 2.1 -
    a. Reference to Building Pad C has been removed from the first paragraph. Pad C should be described here, as it is referred to in the text later in this section, and is shown on Figure 2-1.

    b. Bullet One - The Draft FSP has removed text indicating that the crushed aggregate was contaminated with DDT. To correctly reflect contaminant levels in the aggregate, the final sentence shall be revised as follows (text to be added is shown in bold): "The aggregate was generated on property by crushing the **DDT contaminated** concrete debris from the facility demolition activities; **the post-crushed aggregate remained significantly contaminated with DDT.**"

    c. The sentence added to the end of Section 2.1 should be removed from the text: "*However, there are no specific grading or redevelopment events documented for these areas, as there was for the Montrose property.*" EPA is not aware that a thorough search has been conducted for documents associated with historical grading and/or redevelopment events at properties surrounding the Montrose Plant Property. However, several modifications have occurred, including: building of the substation on the LADWP property, constructing additions and expanding parking areas at the Farmers Brothers property, and capping of the Normandie Avenue Ditch and eastern end of the LADWP property conducted by O'Malley Engineering for Montrose, in response to EPA Order 88.10. Additionally, properties to the north (Frito Lay and Boeing) have also been significantly modified by grading and redevelopment.

11. Section 3.0, Paragraph 2 – The final sentence, added by Montrose, states that the 10 mg/kg benchmark "will ensure full characterization of the DDT concentration at the Montrose Site." Use of this benchmark cannot "ensure," or guarantee, full characterization. Therefore, the sentence should be deleted from the revised Draft FSP.

12. Section 4, Paragraph 2 - The text has been modified by removing the final sentence (which read: "*While the soil sampling effort intends to fill these data gaps, additional sampling may be needed in the future, for example to finalize the remedy selection process*"), and stating that this soil sampling effort "will" be adequate to meet all identified data needs. EPA can not assure that this soil sampling effort will be adequate to meet all data needs for defined objectives; therefore, in the third sentence, replace "will" with "is intended to," and return the removed sentence to the end of the paragraph.

13. Section 4.1.1 – The end of the fifth paragraph (which is a single sentence) has been revised; the word "deepest" was removed, and the example changed. The text originally read "*In the area of the Normandie Avenue Ditch historical pond, elevated DDT has been detected in numerous shallow soil samples (ranging from less than 1 mg/kg to over*

7,000 mg/kg in the upper foot), and sample locations had DDT concentrations significantly above 10 mg/kg in the deepest sample collected from the boring." The sentence as modified no longer reflects the intended meaning, that the deepest samples from several borings contained DDT at concentrations above the 10 mg/kg benchmark. The following are examples of borings with elevated DDT concentrations in the deepest sample: TO-44 (66 mg/kg at 5.75 ft bgs), SO27 (1900 mg/kg at 2.2 ft bgs), SP003 (52 mg/kg at 5.5 ft bgs), and Montrose samples 8-81-8 and 8-81-9 (1100 mg/kg and 2500 mg/kg, respectively). The text should be revised to add "deepest" back to the sentence, and the examples given here should replace those in the current Draft FSP.

14. Section 4.1.2 –
    a. The first sentence of paragraph 3 ("*Based on the RI Report, only one sample was available to characterize the upper 3 feet of on-Property soil*") was amended with the phrase "*in the vicinity of the former BHC plant.*" However, for the 0- to 3-foot depth interval, sampling location 35-D is the only known BHC data point within the Montrose Plant Property. Other BHC results for this depth interval are available for six samples (MD002 through MD006, and SP001) located along the property boundary or off-property. Therefore, the added phrase ("*in the vicinity of the former BHC plant*") should be removed from the revised Draft FSP.

    b. The second sentence of Paragraph 7 ("In the Normandie Avenue Ditch...") as revised, no longer illustrates where BHC may have been transported to deeper soil. This sentence should be revised as follows: "In the Normandie Avenue Ditch area at sampling location TO34, the majority of sample depths including the deepest sample (6 ft bgs) had BHC results of non-detect; however, the reported limits of detection for alpha-BHC exceed the industrial EPA Region 9 Preliminary Remediation Goal (PRG) by at least 7 times."

15. Section 4.2.2 - The discussion of the VOCs historically detected in the Normandie Avenue Ditch historical ponding area (Section 4.2.2, fourth bullet) was modified to state "*samples...were found to contain detectable concentrations of VOCs.*" This statement does not accurately represent findings in samples from February 1981 collected by the Department of Health Services, where a soil sample from the ponding area contained 2.5% chlorobenzene (and 98 mg/kg of 4,4'-DDT), and a liquid sample from the pond contained 84% chlorobenzene (with a pH of 14). Therefore, the second and third sentences of Section 4.2.2, fourth bullet, should be replaced with the following text: "*The ponding area was sampled in 1981 by Department of Health Services after stormwater runoff had accumulated from the common ditch serving Montrose and Jones. MCB was detected in both liquid samples (up to 84% MCB in MC005) and soil samples (up to 2.5% MCB in MC006), along with elevated concentrations of DDT.*"

16. Section 4.3 –
    a. In the first bullet, the Industrial PRG value for lead (800 mg/kg, revised in October 2004) should be added for reference.

    b. In the final paragraph, which identifies objectives for metals characterization, the second sentence identifying data uses should include the human health risk assessment.

    c. Please separate the header "Metal Characterization Objectives" from the listed objectives, instead of being part of Objective "a".

17. Section 4.4.3 –
    a. Paragraph 1 - The fourth sentence as modified, does not clearly distinguish between soil and dust wipe samples, and should be revised as follows (add bolded text): "*A dust wipe sample from within a building at the east end of Jon Street contained **266.3 mg/kg total DDT, and a soil sample from that same parcel contained** 126.3 mg/kg total DDT; **soil** samples collected along Francisco Street, had total DDT values from 25.1 to 53.8 mg/kg…*"

    b. Paragraph 2 - The second sentence should be revised as follows (add bolded text): "*If Montrose-related contaminants are detected but not adequately characterized **for human health risk assessment purposes (e.g., sampling density and/or variability in contaminant concentrations)** by the proposed sampling, additional sampling may be required.*"

    c. Off-Property Pesticide Characterization Objective (a) – The Business Area has not been evaluated for mechanisms that may have resulted in contaminant transport to deeper soil. Therefore, the second sentence should be changed to read (text to be added is in bold) "*...because mechanisms that may have resulted in contaminant transport to deeper subsurface soil are not **known to be** present in these areas.*"

18. Section 4.4.4 -
    a. Two bulleted items – In the Draft FSP, a sentence has been added to each bullet (for the 24-inch diameter vitreous clay pipe and the 18-inch diameter corrugated iron pipe) providing dates of service. While the EPA 1998 Final RI Report is cited, the dates of use for these conveyances do not correspond with text found in the RI Report (see following quote). These added sentences should be removed, or documentation provided to EPA to support these dates of use. (The EPA 1998 Final RI Report, Page 1-38, states "*At some point, the 18-inch corrugated iron pipe culvert leading from Montrose under Normandie Avenue came into disuse. Instead, a buried connector drain was constructed in a bermed area in the*

Farmers Brothers parking lot. This drain is a 24-inch vitrified clay pipe and runs eastward, under Normandie Avenue, connecting with the northern end of the Kenwood Drain. Inspections by EPA in 1982, prior to Montrose plant demolition, indicated that the drainage from the Montrose plant was now flowing along the bermed area and into this drain.")

b. Third paragraph – The final two sentences describing the Kenwood Removal Action have been deleted from the Draft FSP. These sentences conveyed that DDT, transported by runoff from the Montrose Property, had been deposited along the bed of the historical Kenwood Ditch. In the revised Draft FSP, the second sentence should be amended with the bolded text to read as follows: "*Between 1999 and 2002, EPA conducted an investigation and removal action* ***to remove DDT and DDT-contaminated*** *soils associated with the portion of the historical ditch...*"

c. Fourth paragraph – The second sentence states that WRH Industries was used to remove Montrose process waste. However, this sentence was amended to include the following: "*...believed to be municipal trash (Western Waste is one of the largest municipal trash haulers in Los Angeles County).*" This amended text should be removed, or else specific documentation provided to EPA to demonstrate that the "process waste" was, in fact, municipal trash.

d. Fifth paragraph –
    a. First Sentence - Completion of a human health risk assessment addressing pesticides detected at the Western Waste property should be added to the identified intended uses of the data.

    b. A previous EPA communication (letter dated May 19, 2004, summarizing issues from the March 4, 2004 meeting) identified the potential need for additional sampling at the Western Waste parcel: "*...additional soil sampling in the Western Waste area will be necessary to delineate areas of contamination and/or provide adequate data for the human health risk assessment, should elevated or variable concentrations of pesticides be detected.*" Additional data could still be required to address the Western Waste parcel; therefore, the following text should be added to the end of the paragraph: **"If the sampling provided in this FSP for the Western Waste area indicates that pesticide concentrations in soil have not been adequately delineated vertically or laterally, and/or areas that may pose an unacceptable risk do not have the necessary density of samples to determine an exposure concentration, as required by EPA's guidelines for human health risk assessment, then more sampling may be required to meet these objectives."**

19. Section 5.2 – Pesticides are to be analyzed by EPA Method 8081A. EPA has requested that all pesticides detected by this method be reported, in addition to reporting results for DDT and BHC. Therefore, EPA requests that the first two sentences be modified as follows for clarity (adding bolded text and eliminating strikeout text): "*Samples collected for pesticide analysis will be analyzed ~~for DDT and BHC~~ at an off-site laboratory. ~~Analysis for DDT and BHC will be conducted~~ using SW 846 procedures for EPA Method 8081A, and shall evaluate* ***and report all method analytes, including*** *the isomers of DDT and BHC.*"

20. Section 5.4.1, 5.4.2 and 5.4.3 – The first paragraph of Section 5.4.2 discussed "*6 additional borings, 3 on- and 3 near-Property, that will be sampled for VOCs.*" These six boring locations are to be located just off-property, adjacent to the Montrose Plant Property fence line, and therefore, should all be identified as near-Property sample locations. The counts of on- and near-property borings for pesticides, VOCs and metals should also be revised to reflect this (see comments to Table 6-1).

21. Section 5.4.1 – The text states 27 borings will be advanced to a depth of 60 feet, with an additional six (6) advanced to 90 feet. This count does not correspond to a count based on Figure 5-1. The number of deep soil borings to be analyzed for BHC should be confirmed and/or corrected and the text also revised accordingly.

22. Section 5.4.2 – Bullets following the second paragraph - Confirm the number of deep borings (60 feet bgs versus 90 feet bgs), and correct the identified sample location for the Normandie Avenue Ditch deep boring to be analyzed for VOCs (should be C98, not C76).

23. Section 5.4.3 –
    a. Bullets 2 and 3 – In this subsection addressing sampling for metals in on- and near-property deep soil borings, other analytes to be sampled (or that have previously been sampled) are identified. EPA recommends that for clarity, discussion of other analytes be removed from this section, as they have already been addressed in the appropriate preceding subsections.

    b. Bullet 4 – This bullet addresses metals sampling from a ten-foot boring (C76) located in the Normandie Ave Ditch historical ponding area, but is presented under the paragraph for metals sample collection from deep borings. For clarity, information in this bullet should be moved to the first paragraph of the Section, which addresses metals sampling in shallow soil.

24. Section 5.4.4 –
    a. The sample counts should be corrected for the LADWP right-of-way (13 borings sampled for both DDT and BHC, and two (2) sampled only for BHC) and the Farmers Brothers property (17 borings sampled for both DDT and BHC).

b. The fourth bullet describes the sample boring distribution for the Western Waste parcel. For clarity, EPA recommends that this bullet be revised to identify the number of samples corresponding to the different sampling areas. For example, 12 samples (to be sampled to 8 ft bgs) are located in the reworked area north of the U-shaped rail spur near the former swales; and 9 borings (to be sampled to 4 ft bgs) are located east of the swales in the reworked area north of the U-shaped rail spur.

25. Section 6 – Please add a bullet to specify that "special handling" (modification of the sample preparation and analysis) is requested to address the BHC isomers (alpha-, beta-, delta- and gamma-BHC).

26. Section 7.2 – The third paragraph discusses backfilling boreholes after sample collection. Many of the deep soil borings (i.e., 60 to 90 feet bgs) will be installed within or adjacent to the area of known or possible DNAPL, which may be subjected to a thermal remediation approach. The Draft FSP should be modified to reflect that heat-resistant cement used during the DNAPL Reconnaissance program (i.e., a neat cement silica flour mixture) will be used to backfill on-Property deep borings.

27. Section 7.2.3 -
    a. Six sampling locations along the eastern boundary of the Montrose property (C12, C19, C28, C37, C47 and C53) will be advanced by hand-augers, and field screened to determine if the corresponding sample should be submitted to the laboratory for VOC analysis (i.e., if FID or PID readings exceed 10 parts per million by volume). The Draft FSP does not clearly describe how this field screening will be done so as to not compromise the validity of the corresponding VOC sample. The revised Draft FSP should provide additional detail regarding the sequence of field screening and/or sampling for VOC analysis.

    b. The text states that the sample will be collected in a stainless steel sleeve. Please revise the text to clarify how the sample lithology will be described if the sample is in a stainless sleeve.

28. Section 7.2.4 –
    a. The proposed sampling procedures could facilitate the loss of VOC prior to sample collection. For example, rotosonic drilling includes splitting the core length-wise for field screening (which includes FLUTe™ ribbon exposure to assess if free phase DNAPL is present, and collection of samples for PID/FID screening) prior to sample collection. To preserve validity of all VOC samples collected from borings, VOC sample collection using Encore™ samplers should be conducted at the specified depth soon as possible after retrieving the core and before conducting field screening. The text should be revised to make evident

that sample collection procedures will not jeopardize the validity of VOC samples.

b. It is important to understand the composition of NAPL that occurs beneath the site. Therefore, where NAPL is detected in soil borings (e.g., by FLUTe ribbon) outside the currently defined area of "known DNAPL" (as referenced in the H+A document "Results of DNAPL Reconnaissance Investigation"), additional soil samples of that DNAPL should be collected and submitted for VOC and pesticide analysis. This sampling of identified DNAPL is in addition to sampling identified in the Draft FSP, and should be added to the scope of the revised Draft FSP.

c. The referenced date in the text for the Hargis + Associates report *Results of DNAPL Reconnaissance Investigation* should be corrected from "2003b" to 2004.

29. Section 7.8.4 – Laboratory quality control (QC) samples require collection of a triple volume sample: the first volume for the site sample, the second volume for the matrix spike analysis, and the third volume for the matrix spike duplicate sample analysis. For example, for VOC analysis, the first set of three Encore samples are for the site sample, the second set of three are for the matrix spike, and the third set of three are for the matrix spike duplicate, for a total of nine Encore sample containers. The text should be clarified to reflect that triple volume of samples will be collected where MS/MSD samples are collected.

30. Section 7.2.5 –
    a. During the DNAPL Reconnaissance program, flame ionization detector (FID) screening was found to be more reliable than photoionization detector (PID) screening. Therefore, the text should be modified to state that FID as well as PID screening will be conducted during soil sampling field screening, and both subject to the PID-related decisions.

    b. The workplan should be amended to provide more description of the field screening methods for the rotosonic drilling technique. The FSP should explicitly state that continuous lithologic logging and FLUTe ribbon screening will be performed on all core samples, and PID/FID screening will be performed on each core interval (i.e., at 2-to 5-foot intervals).

Figures

31. The revised Draft FSP should include the additional figures provided by Earth Tech to EPA (letter dated October 8, 2004), which locate features referenced in the text, and illustrate the locations and distributions of existing and proposed sample locations. These figures are needed to support the FSP's stated objectives that data will be adequate to evaluate the presence and distribution of chemicals, and to complete the risk assessments.

b. Define the red and black DNAPL boring symbols to distinguish where DNAPL was, or was not, observed in soil samples. Include what criteria were used to define observed DNAPL (e.g., visual and/or FLUTe ribbon staining).

c. Clarify that the DNAPL contour represents the extent of Montrose DNAPL, which consists largely of monochlorobenzene.

d. Identify the document from which these contours are taken.

Tables

37. Two versions of Tables 3-1, 5-1, 5-2, and 6-3 (one in the text and one at the end with other tables) are presented in the Draft FSP. A single, corrected version of each should be included in the revised Draft FSP.

38. EPA requests that an additional table be prepared which identifies the number of samples for each requested analysis, by both boring and property, to determine total sample numbers.

39. Table 3-1 - EPA Region IX PRG values for residential and Industrial soil exposure.
    a. The Region IX PRG values were updated as of October 20, 2004. Therefore, Table 3-1 should be updated and the new values used in this sampling effort and related tasks. Specifically, industrial values should be revised as listed below and residential PRG values should be revised as needed.
        i. Benzene – 1.4 mg/kg
        ii. Chloroform – 0.47 mg/kg
        iii. Ethylbenzene – 400 mg/kg
        iv. Lead – 800 mg/kg
        v. Tetrachloroethene – 1.3 mg/kg

    b. Values that represent California Modified PRG values should be identified (e.g., chloroform, 1,1-dichloroethane, and residential lead).

    c. The following compounds should be added to the table: 1,2–dichlorobenzene, 1,3-dichlorobenzene, 1,1,2-trichloroethane, 1,1,2,2-tetrachloroehtane, trans-1,2-dichloroethene, and 1,2,4-trichlorobenzene.

40. Table 5-1 –
    a. Version embedded in the text –
        - The first bullet of the Notes should be amended for clarity as follows: "*Soil samples will be collected at 15 feet, or 70 feet, 80 feet and 90 feet bgs only at those locations that specify such in Table 6-1.*"

- In note "d," chloral hydrate (an analyte of EPA Method 8260B) was removed as a chemical of interest and should be restored.

b. Revised version in back of draft FSP–
   - The indicators for footnotes 1 and 2 would be more accurately placed at the top of the Pesticide Protocol column. Furthermore, the text should be corrected (e.g., note 1 is inaccurate and incomplete, and note 2 is redundant of note 1).
   - Definitions of DDT and BHC, as used in this table, should include all isomers.

41. Table 6-1 –
   a. Table 6-1 should identify all proposed quality control (QC) samples (e.g., field duplicates, MS/MSD samples, and field rinsate samples).

   b. Boring C6 is shown on the table as a shallow boring, but should be identified as a deep boring, with samples taken to 60 feet bgs (as shown in Figure 5-1).

   c. Borings C8, C12, C28, and C47 should be identified as near-property locations, not on-property locations.

   d. It would be helpful if the revised Draft FSP identified off-property borings locations more specifically; for example, identify locations as on the Farmers Brothers or Western Waste properties, instead of simple identifying them as off-property.

42. Table 6-2 –
   a. The table should be corrected to state that triple volume (as opposed to one double volume) of samples will be collected where MS/MSD samples are indicated.

   b. The table states that trip blanks will be analyzed only if VOCs are detected in actual associated site samples (i.e., samples shipped in the same cooler as the trip blank). The text should explicitly state the criteria that will be used to trigger analysis of the trip blanks (e.g., any positively detected value, or any non-detect result where the limit of detection exceeds a specified value).

43. Table 6-3 – This table should be modified to indicate that sleeves and glass jars will be used for metals and pesticide analysis, where collection of duplicates or split samples require mixing prior to sample division.

Those figures showing DNAPL and soil gas contours should clearly indicate that the contours are taken from draft documents not yet approved by EPA. Additionally, figures should be amended or added to also illustrate (a) additional Property features such as the building pads and Kenwood soil storage cells, (b) the extent of DNAPL in the vadose zone, and (c) TCE concentrations in soil.

32. Figure 5-1 - The October 8, 2004 revised version of Figure 5-1 should be used in the revised Draft FSP. In this revised figure, the erroneous parcel boundary line between the southern boundary of Jones and the northern boundary of the Farmers Brothers property has been removed (north of borings C77 through C83).

33. Regarding the legend on October 8, 2004 Figures (revised and additional) –
    a. The description for the Western Waste Parcel and adjacent LADWP soil sampling locations states these locations are "focused on aerial dispersion pathway." This description is incomplete and therefore misleading, and should be removed from the revised Draft FSP.

    b. The references are no longer applicable and should be removed.

34. Figure FSP-2 shows proposed sample location C6, which is next to historical sample location MD002. Soil samples from MD002 contained monochlorobenzene (MCB) at elevated concentrations (e.g., 70 ppm at 6.5 feet) that require delineation. Therefore, proposed sample location C6 should be relocated to be north of MD002, to delineate MCB found in soil samples from that boring.

35. The October 8, 2004 additional figures omit some sampling locations and data. In the revised Draft FSP and subsequent documents, the figures presenting existing sampling data should include all data in order to support assertions that sampling is adequate to delineate these areas.
    a. Figure FSP-3, DDT Concentrations in Soil – Omitted samples include: off-Property sample locations 8-81-1 and 8-81-4 (109 ppm DDT and 14 ppm DDT in surface soil); the series of samples collected by Montrose in 1981 (e.g., 10-81-1 through 10-81-4); and, laboratory samples collected by McLaren Hart in 1994 providing DDT characterization at the western Montrose Property boundary.

    b. Figure FSP-4, BHC Concentrations in Soil - sample locations omitted include LA001, and samples collected on the Jones property, including sample LF48, which demonstrates that BHC is present to the south beyond the Montrose property boundary.

36. Legend for Figure FSP-6, DNAPL Extent in Saturated Zone -
    a. Correct the sub-heading from "Soil Boring Location Legend" to "DNAPL Reconnaissance Boring Location Legend."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

January 25, 2005

Mr. Joseph Kelly
Montrose Chemical Corporation
600 Ericksen Avenue NE, Suite 380
Bainbridge Island, WA 98110

RE: *"Draft Montrose Responses to EPA Comments on Draft FSP, Supplemental Soils Investigation, Montrose Superfund Site".*

Dear Mr. Kelly:

EPA has reviewed the above-mentioned January 4, 2005 letter and comments, prepared by Earth Tech Inc., on behalf of the Montrose Chemical Company (Montrose). At EPA's request, Earth Tech also provided EPA with revised text associated with four comments from the January 4, 2005 letter (email dated January 20, 2005). Our comments regarding the January 4, 2005 letter and January 20, 2005 email are attached. It is our understanding that upon receipt of this letter, Montrose will prepare and submit a revised draft FSP that addresses EPA's comments as presented in these letters.

Please contact me at 415-972-3106 if you have any questions.

Sincerely,

Susan Keydel
Remedial Project Manager
Superfund Division

Attachment
cc: Karl Lytz, Latham & Watkins LLP
Kelly Richardson, Latham & Watkins LLP
Paul Sundberg, Montrose Consultant
Brian Dean, Earth Tech
Mike Palmer, Hargis + Associates, Inc
Yasser Aref, DTSC
Frank Gonzales, DTSC
Rich Sturn, CH2M Hill

Attachment:
EPA Comments on
"Draft Montrose Responses to EPA Comments on Draft FSP, Supplemental Soils Investigation, Montrose Superfund Site"

With the conditions and exceptions noted below, EPA accepts the responses to comments as proposed in the January 4, 2005 *Draft Montrose Responses to EPA Comments on Draft FSP, Supplemental Soils Investigation*" and the January 20, 2005 email. Please recall that the revised draft FSP and associated documents must be approved by EPA prior to the initiation of field work.

1. **General** – EPA has addressed the revisions proposed in the January 4, 2005 letter, to the extent possible without actually reviewing the revised FSP. Therefore, EPA may have additional comments on the Revised FSP. For example, in response to EPA's Comment 2, Montrose has stated that references to the Normandie Avenue Ditch and historical ponding area will be modified to clarify if reference is to the historical ponding area or the actual ditch. Comments that apply to text throughout the document can not be assessed until the Revised FSP is reviewed.

2. **Comment 1** - EPA had requested that several proposed borings be located relative to historical borings (e.g., west of historical boring XX), and that the locations of these historical borings be confirmed. In a meeting on January 6, 2005, Montrose informed EPA that the locations of many of these historical sampling locations could not all be confirmed due to lack of information. However, the locations of the historical sampling transects in the Normandie Avenue Ditch historical ponding area (sample locations TO31 to TO34, TO41 to TO46, TO51 to TO54, and TO61 to TO64) had been confirmed, to the extent possible, using information from field notes. The locations of these transect samples were reportedly noted as distances from other objects and landmarks, some of which no longer exist. Due to the uncertainty of the historical sampling locations, future determinations based on these samples (e.g., regarding the extent of contamination or need for remedial actions) must be approved by EPA.

3. **Comment 4** – Montrose has agreed to conduct the physical soil parameter testing specified in EPA's November 23, 2004 comment letter. Montrose also has proposed to sample and analyze soil from 5 feet below ground surface (bgs), and to conduct sieve analyses and permeability testing on all physical parameter samples collected (5 ft, 15 ft and 35 ft bgs). EPA accepts Montrose's proposal to conduct this additional sampling and analysis, as specified in the comments.

4. **Comment 6** – The January 4, 2005 letter incorrectly states that EPA has received Earth Tech's Health and Safety Plan. A Health and Safety Plan must be provided to EPA before the FSP and QAPP can be approved.

5. **Comment 10** – Montrose's response (in the January 4, 2005 letter) proposed the following wording for Section 2.1 of the revised FSP text: "*The aggregate was generated on property by crushing the concrete debris from the facility demolition activities; samples of the crushed debris indicates* [sic] *that at least a portion of the material is contaminated with DDT.*" EPA finds that this proposed text understates the likely extent of contaminated debris. As described in a January 14, 2003 letter from Paul V. Sundberg to Kathleen Salyer of EPA, crushed concrete debris was chemically characterized by three samples randomly collected from the top, middle and bottom of the debris pile. The three samples contained significant concentrations of total DDT, ranging from 6,000 to 7,600 mg/kg. Montrose had these samples re-crushed (to incorporate the "clean" chunks of concrete) and then reanalyzed. Total DDT concentrations in the re-crushed and re-analyzed samples ranged from 220 to 640 mg/kg total DDT. The January 14, 2003 letter states "these results are likely to be reasonably representative of the matrix of the material that was used as road bed material." Based on this information, Montrose shall revise the proposed text to state: "*The aggregate was generated on property by crushing the concrete debris from the facility demolition activities; samples of the crushed debris indicate that the material remains significantly contaminated with DDT.*"

6. **Comment 11** – Montrose has agreed to remove the sentence that states the benchmark value for total DDT (10 mg/kg) "*was selected as a conservative approach (applying a residential benchmark to industrial and commercial properties).*" EPA would like to clarify that, while the 10 mg/kg benchmark used for residential cleanup was taken into consideration, the DDT characterization benchmark for this Supplemental Soil Sampling FSP (see Section 3.0, paragraph three, first sentence) is primarily based on the industrial EPA Region IX Preliminary Remediation Goals (PRGs) for DDT, DDE and DDD (7 mg/kg, 7 mg/kg and 10 mg/kg, respectively).

7. **Comment 13** – Montrose agreed to revise Section 4.1.1, paragraph 5, to reflect the known vertical extent of DDT impacts at the Normandie Avenue Ditch historical ponding area. The proposed revised text was provided to EPA for review (January 20, 2005 email from Earth Tech). EPA accepts the proposed text with the following conditions:

   i. EPA understands that the proposed text will replace Section 4.1.1, paragraph five of the September 2004 Draft FSP text.

   ii. DDT data (in parts per million, ppm) will be presented for the following borings, as reported by both Smith Emery and Stauffer Chemicals, respectively: Boring 8-81-9 (2,500 and 1,883 ppm); Boring *2 (25 and 1760 ppm); Boring 8-81-8 (1100 and 927 ppm); Boring *16 (28 and 360 ppm); Boring *6 (71 and 55 ppm); and, Boring *10 (0.66 and 10 ppm).

8. **Comment 14** – Based on this information provided in the Montrose response to EPA's Comment regarding the locations of historical BHC samples, the phrase added by Montrose to the first sentence of Section 4.1.2, paragraph 3 ("*in the vicinity of the former BHC plant*") should be revised to state: "*in the central and eastern portions of the former plant property.*"

9. **Comment 28** – Montrose stated that the text for Section 7.2.4 would be revised to address the procedure for the collection of VOC and DNAPL samples from rotosonic drilling cores. EPA requested to see the revised text, which Earth Tech provided in the January 20, 2005 email. That proposed text should be revised as follows:

   i. Replace paragraph 1 of Section 7.2.4 (September 7, 2004 Draft FSP) with Proposed paragraphs 1 and 2.

   ii. In proposed Paragraph 2, the second sentence should be deleted ("To access the core material for VOC sampling..."). VOC samples should be collected at the specified sample depth from the inside of the core, immediately after the sleeve is cut opened, and prior to collecting other samples or conducting field screening. Sampling from the inside of the core is necessary to avoid sampling core wall soils that may have been affected by the drilling.

   iii. The second paragraph from the September 7, 2004 Draft FSP, Section 7.2.4 should be retained, with the first sentence of that paragraph replaced with the following: "To access the core material for sampling, the plastic sleeve will be cut open along its entire length, and soil samples colleted at the target depths from the center of the core material."

   iv. Paragraph 3 of the text proposed for Section 7.2.4 is more appropriate to Section 7.2.5, Field Screening. Therefore, the second paragraph of Section 7.2.5 (September 7, 2004 Draft FSP) should be modified as follows.

      a. Delete the second and third sentences describing the opening of the core, redefining the FLUTe ribbon at the beginning of the third sentence.

      b. Delete the first six words of the final sentence ("The presence of DNAPL, denoted by").

      c. Add proposed paragraph 3 to the end of Section 7.2.5, and replace the first sentence of that proposed paragraph with the following sentence: "Field screening indicators for the possible presence of DNAPL include visual observation of DNAPL, staining of the FLUTe ribbon, and/or PID readings greater than or equal to 1,500 ppm."

10. **Comment 40** – EPA and Montrose have not yet determined an appropriate approach for analysis of chloral hydrate. Decisions regarding the approach for analysis of chloral hydrate will be documented separately, if not resolved in a time frame allowing the method to be incorporated into the revised FSP, and may require an amendment to the revised FSP.

APPENDIX B

EPA Region IX Instructions for Shipping and Documentation

INSTRUCTIONS FOR

SAMPLE SHIPPING

AND DOCUMENTATION

November 1997

Quality Assurance Management Section
U. S. EPA Region 9
San Francisco, CA

TABLE OF CONTENTS

FIGURES

1.0 GENERAL

1.1 When all paperwork has been completed by the sampler and samples are ready to be shipped, place the laboratories' copies in a plastic bag and tape it to the inside of the lid of the cooler(s). For CLP Analytical Services, Contract Laboratory Analytical Services Support's (CLASS) copies must be submitted within 5 days of sampling. The Region's copies may be submitted at that time or at the end of the sampling event. If the sampling event covers an extended length of time, the Region's copies must be submitted weekly. (Note: The RSCC coordinator will not forward CLASS's copies. They will be returned to the sampler.)

QAMS address:

U.S. EPA Region 9
Quality Assurance Program (PMD-3)
75 Hawthorne Street
San Francisco, CA 94105
Attn.: RSCC Coordinator

CLASS address:

Contract Laboratory Analytical Services Support
DynCorp
2000 Edmund Halley Dr.
Reston, VA 20191-3436
Attn.: Region 9 Coordinator

1.2 For analyses performed by the Regional Laboratory, DO NOT send any copies of the paperwork to the Contract Laboratory Analytical Services Support (CLASS).

1.3 DISTRIBUTION OF COPIES

1.3.1 CLP ANALYTICAL SERVICES

1.3.1.1 ORGANIC TRAFFIC REPORT/CHAIN-OF-CUSTODY FORM

a. Blue (original) copy to QAMS, Region 9
b. Pink (second) copy to CLASS
c. White (third) and Yellow (fourth) copies accompany samples to laboratory
d. Photocopy for sampler's files

1.3.1.2 INORGANIC TRAFFIC REPORT/CHAIN-OF-CUSTODY FORM

a. Green (original) copy to QAMS, Region 9
b. Pink (second) copy to CLASS
c. White (third) and Yellow (fourth) copies accompany samples to laboratory
d. Photocopy for sampler's files

1.3.2 REGIONAL ANALYTICAL PROGRAM (RAP):

1.3.2.1 RAP CHAIN-OF-CUSTODY FORM

a. White (original) copy to laboratory with samples
b. Pink copy to QAMS, Region 9
c. Photocopy for sampler's file

1.3.3 FIELD QA/QC SUMMARY FORM

a. Original to QAMS, Region 9
b. Photocopy for sampler's files

2.0 SAMPLE SHIPMENTS

2.1 Calling in shipments to the RSCC coordinator

2.1.1 Call the EPA Regional Sample Control Center (RSCC) coordinator on a daily basis, even if no shipments were made. The RSCC coordinator may be reached at (415) 744-1498.

2.1.2 Try to stick to the sampling schedule. If this is not possible, let the RSCC coordinator know immediately so other arrangements can be made.

2.1.3 Notify the RSCC coordinator within 12 hours of sample shipments. Calling in sample shipments to the RSCC coordinator is MANDATORY. Provide the following information to the RSCC coordinator:

1. Case number
2. Name of Laboratory
3. Date of shipment
4. Carrier and airbill number
5. Number of samples shipped by matrix and analysis type
6. Number of coolers shipped
7. Information on completions, changes, delays, etc.

2.2 Special shipments (i.e., Saturday delivery/pickup)

2.2.1 General - Friday shipments for Saturday delivery/pickup must be called in by noon (12:00 pm) Friday. This is to enable the RSCC coordinator to pass the information on to CLASS or to the laboratories. Samplers may not contact the laboratories directly. (Laboratories do not have to accept notification of delivery of samples from sources other than CLASS or RSCC.)

2.2.2 Regional Laboratory - The Regional Laboratory is located within a gated compound that is closed on weekends and holidays. Designated laboratory personnel will pickup the samples at the Federal Express office, take them to the laboratory and place them inside the refrigerators. If the following shipping instructions are not followed, an unsuccessful delivery attempt will be made to the Regional Laboratory. In addition, the staff member on call will not be able to pickup the samples, since they will not be at the Federal Express office.

To ensure that samples are held at the Federal Express office, please be sure to complete the following items:

1. On the lower left side of the Federal Express airbill, "For HOLD at FedEx Location check here," mark the box for "Hold Saturday."

2. In Section 3 of the airbill, print the following Federal Express office address:

1600 63rd Street
Emeryville, CA 94608

Federal Express may affix stickers to the coolers. Be sure they read "SATURDAY FEDERAL EXPRESS CENTER HOLD" or something similar. Under no circumstances should a "SATURDAY DELIVERY" sticker be placed on the cooler.

If a carrier other than Federal Express is used, please call the RSCC coordinator (415-744-1498) to make special arrangements.

2.2.3 Most CLP laboratories and other commercial laboratories contracted by QAP are staffed on Saturdays. Therefore, coolers can be delivered directly to these laboratories. In this case, the "SATURDAY DELIVERY" sticker should be placed on the cooler.

2.2.4 Laboratories may request advance notification of the arrival of certain types of samples, such as samples with very short holding times (e.g., Cr +6) that will be hand delivered to the laboratory. Required deadlines for notification of sample shipments in these special cases will be determined on a case by case basis. The RSCC coordinator will inform the samplers as to when notification of sample delivery is required (e.g., by noon on the day samples will be delivered). This is to facilitate the laboratory(ies) having personnel available to analyze the samples as soon as they arrive.

2.3 Cooler Return

Samplers are responsible for providing laboratories with a means to return coolers to their place of origin. The easiest way is to enclose an airbill with return shipping instructions (i.e., the address filled in as to where the coolers are to be returned to) and an account number to charge shipping costs to.

Samplers using EMFAC coolers should refer to Section 7 of the EMFAC Users Guide for cooler return instructions. EPA contractors should contact their EPA Project Officer for details on acceptable modes of cooler return and shipping cost reimbursement.

3.0 CLP ANALYTICAL SERVICES (CLPAS) TRAFFIC REPORT/CHAIN-OF-CUSTODY FORMS FOR ORGANIC AND INORGANIC ANALYSES

3.1 CASE DOCUMENTATION

Complete this form when collecting CLPAS samples. See Attachments 1 through 3 for examples.

Enter the CLPAS case number in the box(es) located in the upper right corner of the form. CLPAS case numbers have the format "xxxxx" (e.g., 18123).

3.2 HEADER INFORMATION

3.2.1 Box 1 - PROJECT CODE/SITE INFORMATION

Enter the Project Code (i.e., $F), Site Name, City, State, Site Spill ID. **(Note: the information entered here does not go through to the laboratory's copies.)**

If sampling is not under the Superfund program, enter the Account code (account to be billed), any Regional Information and the name of the program (e.g., RCRA) in the box titled "Non-Superfund program."

3.2.2 Box 2 - REGIONAL INFORMATION

Enter the Region number, the name of your sampling company, and your name and signature in the designated spaces.

3.2.3 Box 3 - TYPE OF ACTIVITY

Check the appropriate box(es) for the type of activity for this sampling event. See Appendix A for acronym definitions.

3.2.4 Box 4 - SHIPPING INFORMATION

Enter the date shipped, the carrier (e.g., Federal Express, Airbourne, etc.) and the air bill number in the appropriate spaces.

3.2.5 Box 5 - SHIP TO

Enter the laboratory name, full address and laboratory contact (e.g., Sample Custodian).

3.2.6 Box 6 - PRESERVATIVE

This box provides a list of commonly used preservatives. Enter the appropriate preservative in Column D. If you enter "5" on the Organic Traffic Report or "7" on the Inorganic Traffic Report indicating "Other", specify the preservative used at the bottom of the "Sample Documentation" area.

If you are using more than one type of preservative, you may either note the preservatives in the box specifically under the requested analyses (e.g., in the Cyanide box enter "2") or list them, separated by commas, in the same order as the checked sample analyses. (Alternatively, the analyses may be listed on separate lines.)

3.2.7 Box 7 - SAMPLE DESCRIPTION

This box provides a list of the description/matrices of the samples that are collected. Enter the appropriate description in Column A.

3.3 SAMPLE DOCUMENTATION

3.3.1 SAMPLE NUMBERS

Carefully transcribe the CLPAS sample numbers from the printed labels onto the Organic or Inorganic Traffic Report/Chain-of-Custody forms in the column labeled "CLP Sample Numbers".

CLPAS sample numbers have the following formats: YX123 for organic and MYX123 for inorganic samples. See Appendix B for examples.

3.3.2 Column A - SAMPLE DESCRIPTION

Enter the appropriate sample description code from Box 7.

Note: Item #6 "Oil" and Item #7 "Waste" are for RAP projects only. Do not ship oily samples or waste samples without making prior arrangements with the EPA.

3.3.3 Column B - CONCENTRATION

Enter "L" for low and "M" for medium concentration samples. (Prior arrangements must have been made with the ESAT RSCC coordinator, CLASS and the laboratories accepting the samples before shipping medium concentration samples. At this time, high concentration samples must be scheduled through the RAP system.)

NOTE: Medium concentration samples must be shipped in metal cans.

3.3.4 Column C - SAMPLE TYPE COMPOSITE/GRAB

Enter the type of sample you collected. A composite is a sample composed of more than one discrete sample. A grab is a discrete sample.

3.3.5 Column D - PRESERVATIVE USED

Enter the preservative used from Box 6.

3.3.6 Column E - CLPAS ANALYSIS

Check the analytical fractions requested for each sample, for example, VOAs, BNAs and Pesticides/PCBs are for low/medium concentration organics. Total metals and cyanide are for low/medium concentration inorganics.

NOTE: If dissolved metals are requested, a note must be added indicating that the samples have been field filtered and that digestion is required. See Attachment 2 for an example.

3.3.7 Column F - REGIONAL SPECIFIC TRACKING NUMBERS OR TAG NUMBERS

Region 9 does not issue tracking numbers or tag numbers. Samplers may use this column for sampler specific tracking numbers or for "Special Instructions". If you choose to use this as "Special Instructions", be sure to note, at the bottom of the "Sample Documentation" area, what the special

handling is. The number and type of containers could be entered here. (e.g., 3-40 mL, 6-1L)

3.3.8 Column G - STATION LOCATION NUMBER

Enter the station location in the space provided.

3.3.9 Column H - MO/DAY/YEAR/TIME OF SAMPLE COLLECTION

Record the month, day, year and time (use military time, e.g., 1600 = 4:00 pm) of sample collection.

3.3.10 Column I - SAMPLER INITIALS

Enter your initials.

3.3.11 Column J - CORRESPONDING CLP ORGANIC/INORGANIC SAMPLE NUMBER

Enter the corresponding CLP sample number for organic or inorganic CLPAS analysis.

3.3.12 Column K - DESIGNATED FIELD QC

NOTE: This column is NOT to be used for the designated laboratory QC samples. **Information entered here is not reproduced onto the laboratories' copies.**

Enter the appropriate qualifier as listed below for "Blind" Field QC samples in this column. (NOTE: All samples must have a qualifier.)

Blind Field QC	Qualifier
Blind Blanks (field, etc.)	B
Blind Field Duplicates	D
Blind Field Spikes	S
Blind PE Samples	PE
All other field samples	--

"B" = These are blanks and include trip blanks (T), field blanks (F) and equipment blanks (E). Blanks may be further identified by the letter in parenthesis. For example, B(T) indicates that the sample is a trip blank.

"D" = These are field duplicates. Do not include samples designated as laboratory duplicates. The primary sample is identified with "--" and the duplicate is given "D" in column K. In addition, the station locations should also identify the primary and duplicate samples. For example, MW-1 is the primary sample and MW-1B is the duplicate sample.

"S" = These are spiked field samples and are generated by field personnel

"PE" = These are performance evaluation samples. They are spiked samples but are not field samples. They are usually prepared by other than field personnel.

"--" = All other samples not designated as blind field QC samples are given this qualifier.

3.4 "SHIPMENT FOR CASE COMPLETE (Y/N)"

This should reflect the status of the samples scheduled to be shipped to a laboratory for a specific case. Only when ALL samples scheduled for shipment to a laboratory for a specific case have been shipped is the case complete.

3.5 "PAGE 1 OF __"

Enter the number of Traffic Report/Chain-of-Custody Record form(s) enclosed in each cooler. The form(s) accompanying each cooler must list only those samples contained in that cooler.

3.6 "SAMPLE USED FOR SPIKE AND/OR DUPLICATE"

Enter the sample number of the sample designated for laboratory spike and/or duplicate analysis. This is also known as the Laboratory QC sample. This sample should be included in the first shipment to the laboratory and in the first shipment for each subsequent sample delivery group (SDG).

DO NOT enter samples designated as blind field duplicates in this block.

3.7 "ADDITIONAL SAMPLER SIGNATURES"

Record additional sampler signatures that are different from that in Box 2.

3.8 "CHAIN OF CUSTODY SEAL NUMBER"

Enter the Chain of Custody Seal Number used to seal the cooler, if applicable.

3.9 Instructions summarizing CLP sample volumes, packaging and shipment reporting requirements are printed on the back of the Traffic Reports.

4.0 REGIONAL ANALYTICAL PROGRAM (RAP) CHAIN-OF-CUSTODY FORMS

4.1 CASE DOCUMENTATION

Complete this form when collecting RAP samples. See Attachment 4 for an example.

4.1.1 PROJECT NUMBER

Enter the RAP case number in this box.

4.1.2 PROJECT NAME

Leave this space blank.

4.1.3 SAMPLERS (Signature)

Record all sampler signatures in this box.

4.2 SAMPLE DOCUMENTATION

4.2.1 SAMPLE NUMBERS

No sample numbers are provided. Samplers should designate their own numbers and enter them in the space labeled STA.NO.

4.2.2 DATE

Enter the month, day and year the sample was collected in the "DATE" column.

4.2.3 TIME

Enter the time (using military time) in the "TIME" column.

4.2.4 COMP/GRAB

Check the kind of sample collected in the composite or grab column.

4.2.5 STATION LOCATION

Enter the sample site location in the space provided.

4.2.6 SAMPLE MATRIX

For each sample, enter the appropriate sample matrix description in the right third portion of the "STATION LOCATION" column.

4.2.7 NO. OF CONTAINERS

Enter the total number of sample containers collected for each matrix at each station location.

4.2.8 SAMPLE ANALYSES

There are six slanted columns to be used to specify the kind of analysis to be performed by the laboratory. Enter the appropriate analysis in each column. Mark the box of the appropriate analysis for each sample collected.

4.2.9 REMARKS

The items listed below are to be included in this area on the appropriate sample line.

4.2.9.1 CONCENTRATION

Enter "L" for low concentration, "M" for medium concentration and "H" for high concentration.

NOTE: Medium and high concentration samples must be shipped in metal cans.

4.2.9.2 PRESERVATIVE USED

Enter the preservative used.

If more than one type of preservative is used for a sample, separate the preservative references with commas. The sequence of the reference numbers must follow the sequence of the requested "RAP Analysis" parameters that are recorded in the analysis columns.

4.2.9.3 SAMPLE USED FOR SPIKE AND/OR DUPLICATE

Enter the sample number designated for spike and/or duplicate analysis. This is also known as the Laboratory QC sample. This sample should be included in the first shipment to the laboratory and in the first shipment for each subsequent sample delivery group (SDG).

4.3 AIRBILL NUMBER

The airbill number should be entered on the first signature line, in the box marked "Received by: (Signature)".

4.4 "REMARKS" BOX

Located in the lower right hand corner of the Chain of Custody is a box labeled "Remarks". The following items should be entered there.

4.4.1 CHAIN OF CUSTODY SEAL NUMBER

Enter the Chain of Custody Seal Number used to seal the coolers, if applicable, in the box labeled "Remarks", in the lower right-hand corner.

4.4.2 LABORATORY NAME

Enter the Laboratory name in the box labeled "Remarks", in the lower right-hand corner.

4.4.3 SHIPPING COMPLETE?

Enter "yes, shipping is complete" or "No, shipping is not complete" in the box labeled "Remarks", in the lower right-hand corner.

4.4.4 CARRIER

Enter the carrier (e.g., "Fed Ex") in the box labeled "Remarks", in the lower right-hand corner.

5.0 SAMPLE BOTTLES

5.1 Sample bottles be labeled with the following information:

a. Case number

b. Date/Time of collection
c. Matrix/Concentration
d. Station Location
e. Sample number (CLP or sampler designated)
f. Analysis
g. Preservative

5.2 Pre-printed, self-adhesive labels are provided for CLPAS Organic, CLPAS Inorganic and RAP samples.

5.2.1 Transcribe the appropriate sample number onto the corresponding bottle label and/or affix the sample number label onto the bottle.

5.2.2 Destroy all unused labels or return them to the ESAT RSCC coordinator. DO NOT use them for future samplings. New sample numbers will be assigned.

6.0 FIELD QA/QC SUMMARY FORM

6.1 Complete one form per laboratory per matrix for each sampling event. For long term projects, complete a form(s) after each week of sampling. Complete the header portion even if no QA/QC samples were provided.

6.2 Complete all applicable entries. Please use the appropriate sample numbers for each laboratory. (e.g., for the laboratory performing CLPAS organics, use the CLP organic sample numbers, YX123, etc. For the laboratory performing RAP analyses, use the RAP sample numbers, SY0123, etc.) Please do not use station locations. If a laboratory is performing more than one type of analysis, list all applicable sample numbers.

6.3 This form is very important for validation purposes. The validators will compare the results of duplicates and assess the quality of blanks, if they know which samples they are. Failure to provide this information will delay the completion of validation.

Appendix A

TYPE OF ACTIVITY

Check the box which describes the funding lead for this sampling event:

Funding Lead

SF = Superfund
PRP = Potentially Responsible Party
ST = State
FED = Federal

Check one or more boxes, as appropriate, which describe the task of this sampling event:

Pre-Remedial

PA = Preliminary Assessment
SSI = Screening Site Investigation
LSI = Listing Site Investigation

Remedial

RIFS = Remedial Investigation Feasibility Study
RD = Remedial Design
O&M = Operations and Maintenance
NPLD = National Priorities List

Removal

CLEM = Classic Emergency
REMA = Removal Assessment
REM = Removal
OIL = Oil Response
UST = Underground Storage Tank Response

Appendix B

CLP SAMPLE NUMBERS

Each sample is assigned a unique sample number. A "sample" is defined as follows:

- one matrix, e.g., water, soil/sediment, fish, etc.
- one station location
- one analytical program, e.g., CLPAS organics, CLPAS inorganics or a RAP analysis
- one laboratory

Sample numbers for CLPAS analyses:

- CLPAS Organic sample numbers consist of five alpha-numerics, always beginning with "Y"

  Example - YJ386

- CLPAS Inorganic sample numbers consist of six alpha-numerics, always beginning with "MY"

  Example - MYG528

Examples for assigning sample numbers:

- CLPAS Volatiles & CLPAS Pesticides/PCBs receive the **SAME SAMPLE NUMBER**, if the samples are:
  - the same matrix
  - part of the same analytical program, e.g., CLPAS organics
  - from the same station location
  - going to the same laboratory

- CLPAS Volatiles & CLPAS Pesticides/PCBs receive **DIFFERENT SAMPLE NUMBERS**, if the samples are:
  - the same matrix
  - part of the same analytical program, e.g., CLPAS organics
  - from the same station location
  - going to different laboratories

- CLPAS Volatiles & CLPAS Metals receive **DIFFERENT SAMPLE NUMBERS**, if the samples are:
  - the same matrix
  - part of different analytical programs, e.g., CLPAS organics & CLPAS inorganics
  - from the same station location
  - going to the same laboratory

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

EPA — United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

SAS No. (If applicable):

Case No.: 17235

1. Project Code: SF | Account Code:

2. Region No.: 9 | Sampling Co.: Ace

4. Date Shipped: 1-7-94 | Carrier: Fed. Express

Airbill Number: 0912345678

Regional Information:

Sampler (Name): Gail Jones

Sampler Signature: Gail Jones

Non-Superfund Program:

5. Ship To: Alpha Lab
123 Pine Ave
NY, NY 10001
ATTN: John Doe

Site Name: Toxic Dump

City, State: Smallville CA | Site Spill ID: 99

3. Type of Activity — Lead / Pre-Remedial / Remedial / Removal:
SF [X] | PRP | ST | FED
PA | SSI | LSI
RIFS [X] | RD | RA | O&M | NPLD
CLEM | REMA | REM | OIL | UST

6. Preservative (Enter in Column D): 1. HCl; 2. HNO3; 3. NaHSO4; 4. H2SO4; 5. Other (Specify); 6. Ice only; N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil/Sediment; 6. Oil (High only); 7. Waste (High only); 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only AHO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank, S = Spike, D = Duplicate, PE = Perform. Eval., — = Not a QC Sample)
YJ126	2	L	G			X				MW-1	1-6-94 0900	gf	MYG00X	—
YJ127	2	L	G			X				MW-2	1-6-94 1000	gf	MYG003	—
YJ128	2	L	G			X				MW-3	1-6-94 1100	gf	MYG005	—

Shipment for Case complete? (Y/N): Y | Page 1 of 1 | Sample used for a spike and/or duplicate: YJ127

Additional Sampler Signatures:

Chain of Custody Seal Number:

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Gail Jones	1-7-94 1600	0912345678
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	Date / Time	Remarks: Is custody seal intact? Y/N/none

Split Samples: ☐ Accepted ☐ Declined (Signature)

EPA Form 9110-2 (Rev. 8-91) Replaces EPA Form (2075-7), previous edition which may be used

04/13/99 TUE 13:13 FAX 1 415 744 1476 EPA REG 9 001

ATTACHMENT 1

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No. 17235

1. Project Code: SF
Account Code:
2. Region No. 9
Sampling Co. Ace
4. Date Shipped: 1-7-94
Carrier: Fed. Express
Airbill Number: 0912345699
Regional Information:
Sampler (Name): Gail Jones
Non-Superfund Program:
Sampler Signature: Gail Jones
5. Ship To: Beta Labs, Inc. 465 Maple Ave. Atlanta, GA 04507
ATTN: Mary Smith
Site Name: Toxic Dump
3. Type of Activity: Lead: SF [X] PRP [ ] ST [ ] FED [ ]; Pre-Remedial: PA [ ] SSI [ ] LSI [ ]; Remedial: RIFS [X] RD [ ] RA [ ] O&M [ ] NPLD [ ]; Removal: CLEM [ ] REMA [ ] REM [ ] OIL [ ] UST [ ]
City, State: Smallville CA
Site Spill ID: 99

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 6)	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank, S = Spike, D = Duplicate, PE = Perform. Eval., -- = Not a QC Sample)
MYG001	2	L	G	2 3	X		X						MW-1	1-6-94 0900	JB	YJ126	—
MYG002	2	L	G	2		X						A	MW-1	1-6-94 0915	JB	YJ126	—
MYG003	2	L	G	2 3	X		X						MW-2	1-6-94 1000	JB	YJ127	—
MYG004	2	L	G	2		X						A	MW-2	1-6-94 1015	JB	YJ127	—

A = Field Filtered, 0.45 micron Digestion required for all dissolved samples

Shipment for Case complete? (Y/N) N
Page 1 of 1
Sample used for a spike and/or duplicate: MYG003 + MYG004
Additional Sampler Signatures: John Brown
Chain of Custody Seal Number:

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Gail Jones	1-7-94 1600	0912345699			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? Y/N/none

Split Samples [ ] Accepted [ ] Declined (Signature)

Replaces EPA Form (2075-6), previous edition which may be used

04/13/99 TUE 13:13 FAX 1 415 744 1476 EPA REG 9 003

ATTACHMENT 2

ENVIRONMENTA IOTECTION AGENCY
Office of Enforcement

REGION . .
75 Hawthorne Street
San Francisco, California 94105

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
R94512	

SAMPLERS: (Signature)
K. Pettit

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	MATRIX	NO. OF CONTAINERS	LOW LEVEL VOA	SULFIDE	NITRATE/NITRITE				REMARKS
SyD000	7/21/94	1000		✓	FRONT - MW	GW	4	X	X	X				VOA'S PRESERVED W/ HCL SULFIDE PRESERVED W/NaOH + Zn Acetate
SyD001	7/21/94	1030		✓	BACK - MW	GW	4	X	X	X				
SyD002	7/21/94	1300		✓	EAST - MW	GW	4	X	X	X				LABQC
SyD003	7/21/94	1320	✓		EAST - S	SOIL	1			X				LABQC
														ALL SOIL AND GW SAMPLES ARE LOW CONCENTRATION

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
K. Pettit	7/22/94 1600	1234567890			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks LAB: REGION 9 SHIPPING IS COMPLETE CARRIER: FED EX, 7/22/94 CUSTODY SEAL #: 12345	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

04/13/99 TUE 13:14 FAX 1 415 744 1476 EPA REG 9 004

ATTACHMENT #3

ATTACHMENT 4

FIELD QA/QC SUMMARY FORM

Instructions: Complete one form per laboratory and per matrix for each sampling event

Date: 1-10-94
Sampler: Gail Jones
Office: ACE
Phone: (415) 456-7890

Site: Toxic Dump
Case/SAS #: 17235
Laboratory: Beta Labs, Inc

Matrix: (check one)
- X Groundwater
- ___ Surface Water
- ___ Surface Soil
- ___ Subsurface Soil
- ___ Air
- ___ Other

I. BLANKS

Sample #	Type (circle one)	Date Collected
MVG 021	(Equip) / Field / Travel	1-9-94
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	
	Equip / Field / Travel	

II. BACKGROUND SAMPLES

Sample #	Date Collect

III. LAB QC SAMPLES

Sample #	Date Collec
MVG 003	1-6-94
MVG 004	1-6-94

IV. DUPLICATES

Sample #	Matches Sample #	Date Collected	Type (circle one)
MVG 015	MVG 016	1-9-94	a / (b) / c / d
			a / b / c / d
			a / b / c / d
			a / b / c / d
			a / b / c / d
			a / b / c / d

a= composite s
b= consecutive
c= colocated
d= consecutive soil sleeve

V. Checklist of Field Problems Encountered

- X None
- ___ Pumping Equipment Problems
- ___ Sample Filtering Problems
- ___ Less Than Required Sample Volume
- ___ Low Flow/Recharge Rates
- ___ Preservation Problems
- ___ Samples Not Shipped in 24 hrs.
- ___ Federal Express Delay
- ___ Other

Sample # / Date(s) of Occurrence / Comments

ATTACHMENT 5

SAMPLE SHIPMENT INFORMATION

DATE: _____ # OF PAGES: _____

TO: GAIL JONES, RSCC COORDINATOR FROM: _____

CO.: EPA REGION 9 (P-3-2) CO.: _____

PHONE #: (415) 744-1498 PHONE #: _____

FAX #: (415) 744-1476 FAX #: _____

//

CASE #: _____ LAB NAME: _____

COOLERS: _____ SHIPPING DATE: _____

CARRIER: _____ AIRBILL #: _____

# SAMPLES	CONC/MATRIX	ANALYSES

Is this sampling event complete with this shipment? Y N

COMMENTS: _____

//

CASE #: _____ LAB NAME: _____

COOLERS: _____ SHIPPING DATE: _____

CARRIER: _____ AIRBILL #: _____

# SAMPLES	CONC/MATRIX	ANALYSES

Is this sampling event complete with this shipment? Y N

COMMENTS: _____